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ABSTRACT

The fact that career education and vocational education must rely on each other will not prevent conflicting views, due in part to their different genesis, goals, and types of persons served. Educators and evaluators of education should recognize that career education is now faced with a dilemma which many vocational educators have been unwilling to recognize: That it is extremely difficult to prepare workers who are both conformists and change agents, i.e., the question of job conformity versus job reform as goals of education. Even modest programs of career awareness, exploration, and preparation are likely to afford both blue- and white-collar workers new ways of looking at work as well as new opportunities for mobility. Career education and vocational education share the goal of making work possible, meaningful, and satisfying for everyone. (Author/TA)

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MONOGRAPHS ON CAREER EDUCATION

CAREER EDUCATION AND VOCATIONAL EDUCATION: Similarities and Contrasts

by

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PREFACE

The Office of Career Education is issuing a series of monographs (of which this is one) designed to present a wide variety of views about career education. This particular monograph is addressed to both the critics and the proponents of career education, whose attacks and defenses are too frequently based on the wrong ground. It addresses two common but contradictory assumptions: a. That career education and vocational education are two phrases describing the same educational program; and b. that career education will replace vocational education because the former is newer and better. The view expressed here is that neither of these assumptions is correct. Instead, vocational education is seen as an integral and necessary part of career education, and career education is seen as a logical and desirable extension of educational response to trends in society which earlier created, and continue to modify vocational education. But they are not the same, and an examination of their similarities and differences serves to point out both their uniqueness and their complementarity.

To illustrate some of these similarities and differences, the origins and current status of the two programs are described, vocational education is compared with three phases of career education, and the roles of youth clubs in both programs are described. A second section of the monograph addresses the ambivalence of society in striving to promote both job conformity and job reform, and the effects of this ambivalence on the goals of both programs and on the range of persons served. The monograph closes with a description of some of the problems involved in the relationships between career and vocational education and with a prediction that both can expect to be criticized on the one hand for producing workers who are too docile and on the other hand for producing people who expect too much from their work.

This paper has benefited from the comments of a number of my colleagues, including Linda Agler, Patricia Barnhart, Ella Bowen, William Byard, Allen Phelps, William Phillips, Robert Rose, J. Marlowe Slater, Jacob Stern, Marilyn Cheney Stern, and Charlotte Waters.

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INTRODUCTION

The easiest way to describe the relationship between career education and vocational education is to point out that all of the latter is part of the former. But this is only part of the story. Governmental support of vocational education began in this country in the early 1900's, long before career education had been named. At that time, a coordinated educational program to meet the career needs of all persons simply was not salable, though a number of capable people, such as John Dewey, tried. Part of the problem was that faculty psychology was dominant; there was little knowledge of personal development or career development, and little was known of the pernicious effects of segregation by race, sex, and socioeconomic status.

The result was that vocational education was instituted as a group of programs designed to prepare people for jobs below the professional level. These programs were philosophically and often physically separate from the remainder of the school. Students who desired to attend college were excluded summarily, on the not unreasonable assumption that schools would use their own resources for the college-bound, so Federal funds for their aid were not as necessary. Despite this limitation to lower level jobs, vocational education was an enormous step forward because it met the needs of many students who otherwise almost certainly would have dropped out of a school designed solely for those who intended to go on to baccalaureate degrees.

WHAT IS CAREER EDUCATION?

The term "career education" was first used by U.S. Commissioner of Education James Allen in 1970 (Bailey and Stadt, 1973, p. 268). It was described and popularized by Allen's successor, Sidney P. Marland, who undoubtedly deserves credit as the father of the movement.

Dr. Marland wisely refused to define career education precisely, leaving that to local and State initiative. If an official Federal definition had been proposed, it is likely that much effort would have been expended in attacking and defending it rather than in building career education programs. Instead, Marland suggested the need for:

- a. More emphasis on vocational education, as the core of career education, and less on the general curriculum,
- b. Each person to exit from the high school prepared for either continuing education or productive work,

- c. Education for and about work, using a variety of delivery systems (which he called models), and
- d. Increasing the career options open to individuals.

The authority of Marland's position as well as the timeliness of his ideas encouraged many people to begin working on career education in all parts of the country. Almost every State and many local schools adopted a definition of career education, and many of them began programs. While the definitions and programs have differences, it is obvious that most of them were influenced by the Hoyt definition in *Career Education: What It Is and How To Do It*. Virtually every program includes the phases of awareness, exploration, and preparation, and almost every definition includes the following:

- a. Career education is concerned with education for work, both paid and unpaid.
- b. Awareness and exploration of self is as important as and must be related to awareness and exploration of the world of work.
- c. A major goal is to increase individual career options, and to make work possible, meaningful and satisfying for everyone.
- d. Because attitudes are formed early in life, career education should begin with the first year of school (or earlier, in the home), and because the nature of work changes, career education must continue throughout life.
- e. The program must involve the entire community and all parts of the school program.

Almost every program began to try to develop "awareness" of the world of work in the elementary school, "exploration" in the junior high school, and "preparation" in the senior high school. (Unfortunately, some of them assumed that each of these three programs ended at the school level in which it was begun, instead of recognizing that each continues throughout life.) Few career education programs, in spite of their rhetoric about serving all people, made any provision for adults, either through educational assistance in maintaining career competence, or by recognizing that many adults need educational assistance to further career awareness, exploration, and preparation for changed careers. At the same time, vocational education continued a trend of concentrating more and more on school age youth and less and less on meeting adult needs.

Almost every program adopted some method of grouping activities in the world of work into some ten to fifteen "clusters" of similar jobs in order to ensure that no major portions of the world of work were omitted, and presumably in order to make learning more efficient by promoting the study of similar products at the same time (although just what this had to do with efficiency of learning about careers was not clear). Almost every system of clustering grouped together jobs ranging from unskilled to managerial and professional so that the student who studied "Construction," for example, would be exposed to a wide range of occupational levels and could learn the advantages and disadvantages of each. This appears to be sound, but most clusters suffer from overlap which, for example, leads to the study of clerical jobs in every cluster. A few programs use the clusters of "people," "data," "things," and at least one program (American College Testing Service) adds "ideas" to the previous three. This type of clustering is based on studies of actual jobs and careers rather than depending on "logical" grouping which may or may not be closely related to the ways in which people really think about themselves in relation to careers.

Although career education has used as few as three and as many as fifteen clusters to categorize the entire world of work, vocational education has used a larger number of clusters to represent the subprofessional occupations with which it is concerned. The recent trend in vocational education definitely is toward use of a smaller number of (and hence broader) clusters. This trend, however, is in sharp contrast to the situation which existed when Federal support for vocational education was initiated.

At the turn of the century, schools were employing nearly the ultimate in clustering. Faculty psychology was in vogue, and in accord with its dictates, the two basic groups of school programs trained the mind and the hand. The latter of these programs, manual training, purported to prepare students for any non-professional occupation. Unfortunately it did not produce the desired results, and Federally supported vocational education was substituted for it. These early vocational programs went to the opposite extreme, under the assumption that it was necessary to have separate educational programs for each job title. Thus there were separate programs for tool and cutter grinders, wheat farmers, and hundreds of other specialized job titles.

Because even the largest school could offer specialized programs for only a small proportion of the more than 20,000 job titles, there was a gradual movement toward grouping similar job titles and developing a vocational program for these groups of jobs. This led to broader programs such as machine shop and production agriculture. The grouping of job titles progressed slowly, however, because of fears that this was a return to the discredited manual training concept.

The most recent clustering system in vocational education was developed in Oregon by Dr. David Fretwell (Lee and Sartin, 1973, p. 190-205). Nineteen clusters were used, but one of these is a "miscellaneous" category which includes less than 5 percent of vocational education students. These clusters can be used in two ways: For data collection and for instruction. If used for instruction, a student receives a program designed to prepare him or her for employment in any job in the cluster. The majority of the clusters are used for instruction in most parts of the country, e.g., marketing, food service, and electricity-electronics. Other clusters, e.g., metals, construction, and health, are used for instruction in only a few States. Every State, however, can use these clusters for data collection. Each cluster can be subdivided into specialized programs if the local school feels that instruction covering the entire cluster would be so broad as to decrease its utility. The State can then add data from all of the specialized programs in a cluster for reporting enrollments, costs, etc. This clustering system almost certainly will increase the uniformity of vocational education programming and data reporting.

The degree of uniformity of program which has been achieved independently in career education across the country is remarkable, particularly when one considers that there was no one charged with career education leadership in the U.S. Office of Education until 1974. Occasionally one still hears remarks that career education will never amount to anything until it has a single definition upon which everyone agrees. This type of assertion implies that because there are slightly different definitions of secondary education in use that therefore secondary education is hampered significantly. Whether or not this is the case is not at all clear.

What is clear is that anyone who has the opportunity to read the career education literature or to visit a number of career education programs will find similar goals and activities under way throughout the nation. Misunderstanding of career education tend to come from those who have not read the literature or visited programs.

The rapidity of development of career education is particularly surprising because for the first 4 years of its life, career education received very little Federal money, and what it did receive was taken from monies appropriated for vocational education.

WHAT IS VOCATIONAL EDUCATION?

Vocational education began to receive Federal funds more than 50 years ago because of a feeling that the local and State controlled schools were placing almost their entire emphasis on preparing an elite group of students for college

and little or no emphasis on preparing the majority of students for the kinds of work needed by society. Three types of programs were subsidized by the new legislation: Agriculture, home economics, and trades and industries. The first of these emphasized entrepreneurship, the second stressed nonpaid work in the home, and the third prepared people for employment in factories and repair shops.

The next half-century saw a number of gradual shifts in the types of programs which were supported:

- a. More occupational fields were included.
- b. There was more and more stress on employability and less on entrepreneurship.
- c. Paid work was emphasized and nonpaid work (e.g., homemaking) deemphasized.
- d. More emphasis was placed on programs in post-secondary schools for full-time students and less on programs designed for adults who were occasional students.
- e. Part-time cooperative programs (school-supervised employment in business and industry) increased markedly.

The late 1960's and early 1970's produced a series of research results which changed vocational education significantly and laid the groundwork for career education:

- a. Persons with no salable skills have greater difficulties in the labor market than those who have skills of almost any variety.
- b. Because unskilled jobs are usually the easiest to automate, the average level of knowledge and skill required by jobs continues to increase.
- c. Socioeconomic segregation has greater adverse educational effects than does even racial segregation.
- d. The school curriculum in which a student is enrolled is related to the student's race, sex, socioeconomic status, and verbal ability. Measures of educational effectiveness of the various curriculums which do not control for these variables are very misleading.

- e. Handicapped youth learn less when they are segregated than when they have both special assistance and exposure to regular classes. Segregation appears to have a greater negative effect on the learning of attitudes and cognitive skills than on the learning of manual skills, but vocational education involves all three types of learning.
- f. We have been unable to develop effective methods of forecasting local employment needs for even a 10-year period, but students and their parents know what types of vocational education they want. If given a choice, they appear to choose wisely in the long run. A program which does not have acceptance from both students and parents will disappear because of low enrollment.
- g. The student who drops out of school (physically or mentally) does so in large part because he or she sees school as being personally irrelevant.
- h. The old notion of a career requiring continued promotion until a person reaches his level of incompetence with its accompanying frustration is beginning to be replaced by the concept that a career should lead to greater and greater personal satisfaction, even if this means a shift to a different career ladder or a step down the career ladder.

Not all of these research results have been incorporated in all vocational education programs, but enough people accept them to affect markedly the formation of new vocational education programs. The blend of new and continuing programs has increased until now about one-third of high school graduates and community college students have access to vocational education of some type. The proportion of students enrolling in college preparatory and college transfer curricula is static and general curriculums are contracting. Vocational education is growing in enrollment, so if one uses the criterion of consumer acceptance, it is succeeding. Many vocational educators believe that career education programs in the elementary and junior high schools will increase this acceptance of vocational education by students and parents. It would appear that this same assumption leads some nonvocational teachers to be wary of career education because they fear it will decrease emphasis on preparation for college. Many parents, especially those in minority groups, have similar fears. This is discussed further on p. 15.

VOCATIONAL EDUCATION AND THE "AWARENESS" AND "EXPLORATION" PHASES OF CAREER EDUCATION

Many vocational educators who have not had contact with career education programs in the elementary and junior high schools assume that career awareness and exploration are simple matters which can be handled by a course

or two taught by vocational educators in high school. Several things are wrong with this attitude:

1. Attitudes are learned early in life, and attitudes toward work are difficult to change by the time a student has reached high school age.
2. A "course" (or even two courses) is not a very effective way of teaching people to become aware of or to explore the world of work. Thousands of students during the 1920's suffered through "occupations" courses which consisted of the teacher reading long lists of job descriptions, pay scales, and job entry requirements. This type of course cannot substitute for observation, simulation, and discussion which are best spread over several years and are best presented in relationship to other types of school learnings.
3. The vocational educator is not necessarily the best person to teach career awareness and exploration. As a specialist in one part of career preparation, he or she is apt to seek recruits for that specialty and may have little patience with those who are not interested in or qualified for that specialty. And, because nonprofessional careers are emphasized in vocational education, the vocational educator may be suspect of not giving adequate attention to professional careers. As with academic teachers and guidance counselors, vocational educators need special training to do the best possible job of helping students to develop career awareness and to explore a wide variety of careers.

VOCATIONAL EDUCATION AND THE "PREPARATION" PHASE OF CAREER EDUCATION

Because vocational education constitutes an indispensable part of the preparation phase of career education, an understanding of this phase is necessary to an understanding of the relationship of vocational and career education. "Awareness" and "exploration" precede "preparation," the phase in which:

1. Students acquire career decision making skills, work seeking skills, and work evaluation skills;
2. They perfect skills in communication, computation, and human relations which are needed by everyone; and
3. They acquire additional salable skills which apply more to some types of work than to others.

The preparation phase of career education can be (and once was) conducted entirely on the job. However, there has been a continuing trend toward a combination of preparation in school with training on the job. This combination may be done *sequentially* (as is the case when a person goes to engineering school for 4 years, and follows this with 2 years of experience on the job), or *concurrently* (as in a part-time cooperative education program, in which the student engages in alternating periods of study and work under the supervision of the school). Both the sequential and the concurrent methods of instruction are usually accompanied by a certain amount of general education. (Most commonly, 50 percent of the school time in any one school year is spent in general education and 50 percent in specialized instruction).

The length of the in-school preparation phase varies considerably from one type of career to another. For convenience, careers can be divided into four categories of length of specialized preparation:

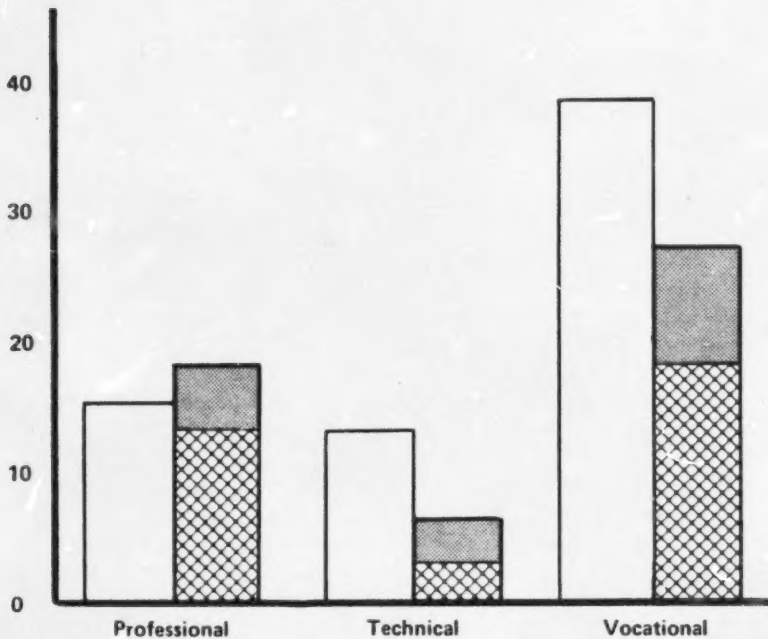
1. Professional—40 to 100 semester hours spread over 4 to 7 years of full-time schooling, usually in a university.
2. Technical—30 to 45 semester hours spread over 2 years of full-time schooling, usually in a community college.
3. Vocational, Skilled—20 to 35 semester hours in 1 year of full-time schooling, usually in a community college; or approximately the same amount of instruction (4 to 6 Carnegie Units) spread over 2 to 4 years of high school.
4. Vocational, Specialized—One day to 6 months of intensive instruction, usually offered to adults by high schools, proprietary schools (e.g., trade and business schools), community colleges, or universities. Specialized preparation is usually completed by persons who are already employed and hence does not provide additional entrants to the labor force.

When one studies the data on the percentage of people employed in various types of occupations and the proportion of students in different types of occupational education programs, some interesting comparisons emerge (see Figure 1): 1) Professional preparation is useful for about 20 percent of the labor market and is completed by about 20 percent of students, 2) technical preparation is useful for about 15 percent of the labor market, but less than 10 percent of students complete it, and 3) vocational preparation is useful for about 40 percent of the labor market, but less than 30 percent of students complete it, and about one-third of its graduates go on to technical or professional preparation.

Figure 1

Types of School-Based Career Preparation:

Estimated Percent Employable In and Percent Completing Preparation for Each Level



 = Percent of population for which such preparation would be useful in employment.

 = Percent of population completing such preparation.

 = Percent of population completing such preparation who later transfer to a different type of preparation.

There are no in-school programs preparing people for job entry to approximately 20 percent of the careers in the labor market, and about 50 percent of new entrants to the labor force have not participated in career preparation programs of any type.

It is a common assumption that vocational education is synonymous with the career preparation phase of career education. This assumption is not quite accurate. Vocational education is concerned with preparation for the large numbers of vocational and technical careers which are nonprofessional and require less than a college degree for entrance, but which require more knowledge and skill than is possessed by the typical high school graduate from the general curriculum.

Career preparation includes (but vocational education usually omits):

1. Preparation for the professions and for similar careers requiring a baccalaureate for entry (about 20 percent of the labor force);
2. Preparation for nonpaid work such as homemaking (once a full-fledge part of vocational education, but now half-in, half-out due to evaluation specialists who convinced Congress that placement of vocational graduates in homemaking was equivalent to unemployment) and volunteer work. (Both of these major types of work are, of course, outside the paid labor force); and
3. Education which is needed for more effective involvement in all types of work, e.g., work-seeking skills, personal and work evaluation skills, and knowledge of how work is organized and carried out (preparation for all work inside and outside the labor force).

It is a common mistake to say that the vocational education curriculum prepares people for 80 percent of the jobs, while the college preparatory curriculum in the secondary school prepares people for only 20 percent of the jobs. It would be more accurate to say that at least 50 percent of high school students are not now prepared for work of any type, and that traditional programs of vocational education which are designed to prepare people for skilled occupations are unlikely to meet this need. Career education programs which emphasize preparation for nonpaid work and preparation which is useful for all types of work (2. and 3. above) offer real promise of meeting some of the needs of this 50 percent.

It might be assumed that there would be no conflict between vocational educators and other career educators with regard to career preparation programs in the high school and community college. This is not quite true, however. The greatest conflict appears to arise between career educators and the coordinators of part-time cooperative education (co-op) programs. Co-op coordinators arrange and supervise employment for students and provide an educational link between the half of the student's time spent at work and the half-time spent in school. Such programs rarely serve more than 10 percent of

the school population, and in order to get participation which is this extensive, the co-op coordinators work night and day to find willing and able employers with whom they can work. A coordinator will do nearly anything to preserve a good "training station." But, along comes career education with blithe promises of providing work experience for everyone. Very often, the first reaction of the co-op coordinator is fear of the loss of training stations, and, more basically, a fear that unsupervised work experience will destroy cooperative education, which many people feel is the best method vocational education uses. The more knowledgeable coordinators cite statistics of 73 percent unemployment among unsupervised work experience students in Maryland during the early 1970's.

Other conflicts are certain to arise as high schools begin to expand their career education beyond what they have been doing in vocational education. These conflicts will not be resolved simply by castigating vocational educators as being resistant to change. They were, after all, in career education before it had that name, and they do know some things which have worked and some things that have not. The co-op coordinators, for example, can supply excellent suggestions on a variety of methods of working with the business and industrial community. And, perhaps they are right that unsupervised work experience programs are far from what they might be.

YOUTH CLUBS AS A MEANS OF CAREER PREPARATION AND EXPLORATION

Almost 2 million high school and post-secondary school vocational education students participate in five youth organizations. The oldest and largest of these organizations are the Future Farmers of America and the Future Homemakers of America. All five of the groups are organized to parallel the traditional vocational programs of agriculture, business, distributive education, homemaking, and trades and industries. The closest major parallel in the health occupations field is the Student Nurses Association, which is limited to post-secondary students of nursing. In each organization a vocational teacher is usually the club adult advisor.

These clubs hold local, regional, and national conferences, and most of them conduct competitive contests in a wide variety of activities and publish materials for student use. Their principal emphasis is on development of leadership skills, and the results are impressive. Their State and national officers are perhaps the best spokesman for vocational education in the Congress and before business and industry groups.

There are also youth organizations for high school youth who wish to explore one or more of several professions. Future Teachers of America, Junior Engineering Technical Society, and Junior Academy of Science are three large national groups. There are national or local counterparts in journalism, music, theater, and many other professions. The adult sponsor may be a local teacher or practitioner who has expertise in the field with which the club is concerned.

At first glance it might appear that vocational and preprofessional youth groups have similar goals, but this is not the case, in spite of the fact that their programs are remarkably alike. Vocational youth groups usually require that the student member be enrolled in the related vocational program. This, in turn, means that the student has made at least a nominal career choice and is in the preparation phase of career education. Consequently, the club program emphasizes proficiency in, rather than exploration of careers. In contrast, the students in preprofessional youth groups are encouraged to explore more widely (but only within the professions represented by the club charter), and there usually is an open-entry, open-exit membership policy which is unrelated to the student's major field of study.

The undisputed value of youth clubs in developing attitudes and leadership skills leads one to inquire why there are so few career education clubs, or at least prevocational clubs. Such groups could play a major role in developing career awareness and assisting with career exploration. Some industrial arts and home economics clubs play this role, but most seem to be avocational.

The youth groups with the most extensive career exploration programs usually are operated outside the schools. Explorers (formerly Explorer Scouts) have an extremely well-developed career exploration program which encompasses all types of careers. Somewhat less extensive exploration is offered by 4-H Clubs and by Junior Achievement.

JOB CONFORMITY VERSUS JOB REFORM AS GOALS OF EDUCATION

Traditionally, Americans have expected the educational system to prepare people to exist comfortably in the existing society. At the same time the influential critics of education have charged education with failure to revolutionize the society or even to change it markedly. Most educators would like to prepare people who can enjoy life as it is, but at the same time can perceive areas of life in which change is needed, and are willing and able to work for such change. Almost invariably, however, the principal emphasis is placed on conformity because society controls the schools, and society is more interested in educating conformists than it is in educating even a small number of revolutionaries.

All education has the dilemma of the need to prepare people both to exist comfortably in society and to change or even to revolutionize that society. The same dilemma exists in career education, but especially in its vocational education phase. A frequently stated objective of vocational education is to enable the graduate to succeed in a given line of work. Success is usually measured in terms of the employer's satisfaction with the graduate, and less frequently in terms of the worker's satisfaction with the job. Both of these evaluative measures encourage educational programs which stress learning to "get along with others," to "practice good human relations," and learning not to "rock the boat."

But at the same time there is societal dissatisfaction with job structure. Vocational education is seen as a means of promoting job enlargement, eliminating discrimination based on sex or race, changing the distribution of national income by finding jobs for the poor, and eliminating socioeconomic barriers to career mobility.

It should be clear that a vocational education program whose graduates enjoy their work and are experts at getting along and not rocking the boat is unlikely to produce many graduates who will push employers or fellow employees for costly improvements in job safety or major changes in job content, promotion patterns, or job assignments. Nor would the vocational education program which graduated large numbers of male homemakers or black electricians (at a time when there was substantial discrimination against such people in society) be likely to have a record of 100 percent placement of graduates in productive work, or to have a record of high job satisfaction on the part of its graduates.

A case in point is the limited role of females in vocational education. Although more females than males are enrolled in vocational programs, more than half of the females are being educated in only one area—home economics—and about one third are studying office practices. Part of this segregation is due to actions of educators and part of it is due to attitudes of potential enrollees. Vocational education is being pressured by recent Federal legislation to increase the mobility of both sexes across educational and employment barriers. It appears that social scientists and Congress are more concerned about non-sexist vocational education than are employers and employees whose major concern is for continuity in their present operations.

There is no known method of preparing a person simultaneously to conform to the expectations of the job market and to revolutionize the job market. Employers tend to emphasize the former and social scientists tend to emphasize the latter, while most vocational educators try to meet both objectives in part. This allows both employers and social scientists to charge that vocational education has failed.

GOALS OF VOCATIONAL EDUCATION AND CAREER PREPARATION

Vocational education and the preparation phase of career education have precisely the same goals of:

1. Meeting the manpower needs of society;
2. Increasing individual options related to work; and
3. Conveying knowledge of the relevance of general education in work.

Because the goal of meeting the manpower needs of society was the initial goal of vocational education, it is sometimes believed by nonvocational educators to be its sole goal. Equally bad is the belief that career education has this as its sole goal.

Vocational education has been continually hampered in achieving its goal of increasing individual options by systems of evaluation which measure its effectiveness in terms of the percentage of graduates placed on jobs in the field for which they were "trained." This type of evaluation counts as a failure the realization by a student that the type of career for which he is being prepared is unlikely to be personally satisfying, and that a shift to a different type of career is therefore desirable. Most educators agree that far from being a failure, such realization represents a success.

Awareness of self inevitably will be enhanced by high quality vocational education. Exploration of the world of work is included in every vocational program, but sometimes the range of exploration allowed is not great. Evaluation of the vocational education phase of career education should include measurement of the effects of awareness and exploration as well as the results of preparation. The career education concept should make such a broadened evaluation more readily acceptable to labor economists and academicians who in the past have seen only one goal for vocational education.

The process of helping students to find work which is meaningful and satisfying is not aided by evaluation procedures which reward schools for restricting student placement to the small number of vocations for which the school has established specific training programs, or for restricting admission to students who are so highly qualified that they are placeable with or without training. The evaluation should be made, first, in terms of the proportion of former students who secured paid and unpaid work, and, second, in terms of the proportion who found their work satisfying and meaningful.

Even more difficult to understand is the type of evaluation which counts it as a failure of vocational education if a student continues his or her education rather than immediately going to work after graduation. In the early days of vocational education such an evaluation might have been justifiable to prevent school administrators from using Federal funds which had been earmarked for nonbaccalaureate jobs as a subsidy for college preparatory classes. But now such evaluation can only serve to limit student options.

PERSONS SERVED BY VOCATIONAL EDUCATION AND CAREER EDUCATION

Career education is designed to serve all of the people. In contrast, vocational education has tended to serve those high school students who are low in verbal ability *and* have low socioeconomic status (Evans and Galloway, 1973). In the post-secondary school it serves those who are low in verbal ability *or* are low in socioeconomic status (Evans and Jackson). Those who are low in both rarely attend post-secondary schools. Clearly, vocational education does not serve all.

The most obvious difference between career education and vocational education is in the minimum age of persons served. Career education may begin in early childhood, while vocational education usually begins about age 16. It seldom or never begins below age 14, and the average age of entry to vocational education has been increasing ever since its inception.

Vocational education is usually thought of as a program for males, but slightly more than half (55%) of its enrollment is female. Sex stereotypes in enrollment parallel those in the world of work, with business education, health occupations, and home economics having female students and teachers almost exclusively. Agriculture, trades, and industries are as solidly male.

Some spokesmen for minority groups see vocational education as a means of teaching which destroys opportunities for higher education for minority students, by providing another rationale for "tracking" students (segregating students who have dissimilar test scores, grades or goals; often used as an excuse for racial segregation). This may be true in certain communities, but in the nation as a whole minorities are neither over- nor under-represented in the vocational education student body. They are under-represented, however, in the teaching staff and in certain higher level technical education programs.

PROBLEMS IN THE RELATIONSHIP OF CAREER AND VOCATIONAL EDUCATION

1. Career education has had its greatest successes in the elementary school. It now appears that its introduction into junior high schools is well under way, but in high schools, there is little to be seen of career education except for vocational education. This can be explained in a variety of ways:

- a. Some persons feel that vocational education and the preparation phase of career education are synonymous, so if their high school has the former, they feel that the latter is accomplished.
- b. Parents want career education to be available in high school, but don't necessarily want their children to enroll in it, especially not in its career preparation phase.
- c. The curriculum in high school is mandated by colleges and by accrediting associations.
- d. High school teachers who accept career education goals feel that little can be done until awareness and exploration activities are well under way in the lower grades.
- e. Some of the high school teachers who accept career education goals know that they have only a limited awareness of the vast range of career options existing in the world of work, and are uncomfortable with the thought that they will be involved in preparing students for careers with which they are unfamiliar.
- f. Some persons who accept awareness and exploration of careers as legitimate school activities feel that preparation is the job of private trade schools or employers rather than of the schools.

The true reasons need to be identified and means found to cope with them. A career education program which is full blown only until it reaches the preparation stage cannot long survive if it then becomes a program only for those who are low in verbal ability and low in socioeconomic status.

2. Career education obtained its initial financing and leadership from vocational education. In the U.S. Office of Education it is difficult to identify more than a handful of people involved in career education who did not come from vocational education. In other parts of government, however, the reverse is true: It is hard to find more than a handful of people who understand what vocational education is or who see its vital role in career education.

The popularity of the career education concept with the Congress and parts of the Executive Branch is causing all sorts of people who don't understand either career education or vocational education to try to get in on the act. This would be fine except that they seem to be less interested in career education than in relabeling their pet projects (e.g., year-round school and modular scheduling) so that they can become eligible for career education funding.

One former official of the Department of Health, Education, and Welfare set career education back several years by trying to equate career education with all education. Two results were apparent: Career education began to be diluted, because it had diffuse goals and fears of educators were heightened because they saw this as a move by career educators to take over all of education. Education has several key goals, e.g., citizenship and health, which are important in their own right, and are only tangentially related to career education. Careers are important and deserve the attention of the school, but they are not and should not be the sole concern of the school. Every part of the school has something to contribute to career education, but every part of the school also has concerns outside of career education.

This mistake of stating that all of education is career education must not be repeated, and the only way to be sure to avoid it is to develop leadership, especially from the fields of career development, educational administration, learning resource management, special education and vocational education to work with subject matter specialists in building a complete program of career education. Internships in active career education programs along with graduate work in career education would make a useful and attractive package for leadership development. Leadership can no longer be allowed to rest solely with vocational educators, nor can it be turned over to persons who see it as a means to the end of furthering their noncareer education ambitions.

3. Career education is needed as much in postsecondary and adult education as in the common schools, and programs aimed at enhancing career awareness and exploration are needed as much as career preparation. Ideally, a career education program which extends from early childhood through adulthood would be planned by all agencies concerned. It is obvious, however, that it is easier to plan around a single K-12 school system than to develop plans which involve several K-12 school systems plus one or more postsecondary institutions, public or private. To overcome such obstacles to coordinated action, incentives should be provided to encourage joint planning which brings together educational institutions of various levels, Comprehensive Education and Training Act (CETA) agencies, and the various adult education agencies.

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SUMMARY

This paper has examined some of the similarities and contrasts between vocational education and the remainder of career education with the goal of a better understanding of both. It has indicated ways in which the older, more specialized field of vocational education is an essential part of the newer, broader, concept of career education. The fact that these two programs must rely on each other will not prevent their having conflicting views, due in part to their different genesis, goals, and types of persons served.

Both educators and evaluators of education should recognize that career education is now faced with a dilemma which many vocational educators have been unwilling to recognize: That it is extremely difficult to prepare workers who are both conformists and change agents. How can one be both satisfied with one's job and eager to change its content? How can one learn to have good human relations and at the same time be pushing other humans to change age-old problems in the work place?

Career education has begun to be important enough to attract critics. One of the criticisms is that it is designed to produce docile workers for the military-industrial complex. It would appear, however, that even modest programs of career awareness, exploration, and preparation are likely to decrease docility by affording both blue-collar and white-collar workers new ways of looking at work as well as new opportunities for mobility. If this is true, one can expect soon to hear cries from other critics, that career education is producing people who expect too much from their work. Steering a course between these two groups of critics will be difficult, but it is better than using education to perpetuate the notion that work is necessarily bad and fit only for slaves. Career education and vocational education share the goal of making work possible, meaningful, and satisfying for everyone.

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